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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/549,620	04/14/2000	Anoop Kumar Mathur	H16-26292	9366

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EXAMINER

HIRL, JOSEPH P

ART UNIT	PAPER NUMBER
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2121

DATE MAILED: 04/11/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/549,620

Applicant(s)

MATHUR ET AL.

Examiner

Joseph P. Hirl

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5. 6) ☐ Other: \_\_\_\_

### DETAILED ACTION

1. Claims 1 – 24 are pending in this application.

#### ***Referenced Documents not Provided in IDS***

2. Referenced documents made part of the specification and so referenced are not readily available to the U. S. Patent Office. The Examiner respectfully requests a copy of all such documents.

#### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Claims 1 – 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Kohn et al (U. S. Patent 5,963,447).

#### **Claim 1**

Kohn anticipates annotating one or more actions in the production recipe with a desired intention for the action (**Kohn**, col 4, lines 57 – 62; col 6, lines 14 – 17; col 18, lines 44 – 45).

#### **Claim 2**

Kohn anticipates annotating the one or more actions with a desired state for the action (**Kohn**, col 4, lines 57 – 62; col 6, lines 14 – 17; col 18, lines 44 – 45; col 2, lines 38 – 40).

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**Claim 3**

Kohn anticipates receiving knowledge from one or more sources (**Kohn**, col 18, lines 44 – 45); and generating through computer automated operations a recipe comprising a set of actions and the purpose of the underlying process (**Kohn**, col 1, lines 8 – 16; col 21, lines 40 – 43; col 4, lines 34 – 37).

**Claim 4**

Kohn anticipates modifying the recipe (**Kohn**, col 6, lines 14 – 17; col 21, lines 32 – 43).

**Claim 5**

Kohn anticipates the knowledge is received from a user (**Kohn**, col 18, lines 44 – 45).

**Claim 6**

Kohn anticipates receiving data from multiple knowledge sources (**Kohn**, col 18, lines 44 – 45; col 55, lines 34 – 36); storing the data in a structured knowledge repository (**Kohn**, col 55, lines 37 – 38); and modifying a recipe for a batch processing situation using the data stored in the knowledge repository (**Kohn**, col 56, lines 1 – 6).

**Claim 7**

Kohn anticipates modifying the recipe further comprises using inputs from a user (**Kohn**, col 18, lines 44 – 45; col 21, lines 32 – 43).

**Claim 8**

Kohn anticipates the recipe contains steps and purposes (**Kohn**, col 4, lines 34 – 37).

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**Claim 9**

Kohn anticipates a Knowledge Builder to derive from multiple knowledge sources (**Kohn**, col 18, lines 44 – 45); a Structured Knowledge Repository to store and organize the knowledge (**Kohn**, col 18, lines 54 – 59); and a Decision Maker to use the knowledge stored in the structured knowledge repository to identify one or more modifications of recipe steps (**Kohn**, col 18, lines 64 – 67; col 19, lines 1 – 6).

**Claim 10**

Kohn anticipates the recipe is for a batch process (**Kohn**, col 1, lines 9 – 16).

**Claim 11**

Kohn anticipates the knowledge builder extracts of knowledge from multiple sources through one or more Machine Learning techniques (**Kohn**, col 10, lines 54 – 57).

**Claim 12**

Kohn anticipates wherein the different Machine Learning techniques act independently from each other (**Kohn**, col 10, lines 54 – 57).

**Claim 13**

Kohn anticipates knowledge builder is scalable by adding additional the Machine Learning techniques (**Kohn**, col 2, lines 16 – 22).

**Claim 14**

Kohn anticipates explanation-based learning, memory based learning, situation-dependent learning (**Kohn**, col 1, lines 9 – 16).

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**Claim 15**

Kohn anticipates the knowledge-building component further receives feedback from a user (**Kohn**, col 18, lines 44 – 45; col 1, lines 9 – 16).

**Claim 16**

Kohn anticipates the knowledge builder is scalable to incorporate new knowledge (**Kohn**, col 19, lines 7 – 13; col 2, lines 16 – 22).

**Claim 17**

Kohn anticipates the knowledge builder is scalable to incorporate new knowledge extraction techniques (**Kohn**, col 19, lines 7 – 13; col 2, lines 16 – 22).

**Claim 19**

Kohn anticipates the Structured Knowledge Repository organizes knowledge and provides links between specific pieces of information and the functional purposes to which the knowledge can be put (**Kohn**, col 18, lines 54 – 59; col 20, lines 10 – 24).

**Claim 20**

Kohn anticipates the Decision Maker assembles the knowledge into an answer to a query (**Kohn**, col 18, lines 65 – 67; col 19, lines 1 – 6).

**Claim 21**

Kohn anticipates the answer to the query is in the form of a recipe modification that meets desired goals and constraints (**Kohn**, col 18, lines 65 – 67; col 19, lines 1 – 6).

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**Claim 22**

Kohn anticipates the decision maker displays knowledge to a user (**Kohn**, col 1, lines 11 – 15).

**Claim 23**

Kohn anticipates receiving one or more desired purposes for the production process; receiving a recipe (**Kohn**, col 4, lines 57 – 62; col 6, lines 14 – 17; col 18, lines 44 – 45); and generating an advanced recipe comprising a set of actions and the purpose of the underlying process (**Kohn**, col 1, lines 8 – 16; col 21, lines 40 – 43; col 4, lines 34 – 37).

**Claim 24**

Kohn anticipates the method further comprises modifying the advanced recipe in response to a user (**Kohn**, col 18, lines 44 – 45; col 21, lines 32 – 43).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kohn et al in view of Acknowledged Prior Art (U. S. Patent 5,963,447, referred to as **Kohn**; Specification, referred to as Acknowledged Prior Art, **APA**).

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**Claim 18**

Kohn does not teach structured knowledge repository uses abstraction-decomposition space (ADS) techniques. However, APA does teach structured knowledge repository uses abstraction-decomposition space (ADS) techniques (APA, page 12, lines 6 – 30; page 13, lines 1 – 6). It would have been obvious of one of ordinary skill in the art at the time of the invention to use the teachings of APA to satisfy analysis requirements as set forth in a learning environment to achieve goal setting functionality.

***Conclusion***

5. The Disclosure was anticipated by Kohn et al in view of APA.

***Correspondence Information***

Any inquiry concerning this information or related to the subject disclosure should be directed to the Examiner, Joseph P. Hirl, whose telephone number is (703) 305-1668. The Examiner can be reached on Monday – Thursday from 6:00 a.m. to 4:30 p.m.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Thomas G. Black can be reached at (703) 305-9707.

Any response to this office action should be mailed to:

Commissioner of Patents and Trademarks,

Washington, D. C. 20231;



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or faxed to:

(703) 746-7239 (for formal communications intended for entry);

or faxed to:

(703) 746-7240 (for informal or draft communications with notation of  
"Proposed" or "Draft").

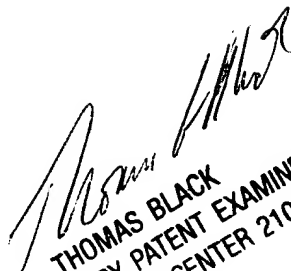
Hand-delivered responses should be brought to:

Receptionist,  
Crystal Park II,  
2121 Crystal Drive,  
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Joseph P. Hirl



April 2, 2002



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